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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/521,005	03/07/2000	Michael R. Pallesen	M-8036 US	1151

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EXAMINER

CHANCE, JANET D

ART UNIT

PAPER NUMBER

3626

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/521,005	PALLESEN ET AL.
Period for Reply	Examiner	Art Unit
	Cheyne D. Ly	1629
-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --		
<p>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.</p> <ul style="list-style-type: none"> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). 		
Status		
<p>1)<input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>07 March 2000</u>.</p> <p>2a)<input type="checkbox"/> This action is FINAL. 2b)<input checked="" type="checkbox"/> This action is non-final.</p> <p>3)<input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i>, 1935 C.D. 11, 453 O.G. 213.</p>		
Disposition of Claims		
<p>4)<input checked="" type="checkbox"/> Claim(s) <u>1-26</u> is/are pending in the application.</p> <p>4a) Of the above claim(s) _____ is/are withdrawn from consideration.</p> <p>5)<input type="checkbox"/> Claim(s) _____ is/are allowed.</p> <p>6)<input checked="" type="checkbox"/> Claim(s) <u>1-26</u> is/are rejected.</p> <p>7)<input type="checkbox"/> Claim(s) _____ is/are objected to.</p> <p>8)<input type="checkbox"/> Claim(s) _____ are subject to restriction and/or election requirement.</p>		
Application Papers		
<p>9)<input checked="" type="checkbox"/> The specification is objected to by the Examiner.</p> <p>10)<input checked="" type="checkbox"/> The drawing(s) filed on <u>07 March 2000</u> is/are: a)<input type="checkbox"/> accepted or b)<input checked="" type="checkbox"/> objected to by the Examiner.</p> <p style="margin-left: 20px;">Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).</p>		
<p>11)<input type="checkbox"/> The proposed drawing correction filed on _____ is: a)<input type="checkbox"/> approved b)<input type="checkbox"/> disapproved by the Examiner.</p> <p style="margin-left: 20px;">If approved, corrected drawings are required in reply to this Office action.</p>		
<p>12)<input type="checkbox"/> The oath or declaration is objected to by the Examiner.</p>		
Priority under 35 U.S.C. §§ 119 and 120		
<p>13)<input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</p> <p>a)<input type="checkbox"/> All b)<input type="checkbox"/> Some * c)<input type="checkbox"/> None of:</p> <p style="margin-left: 20px;">1.<input type="checkbox"/> Certified copies of the priority documents have been received.</p> <p style="margin-left: 20px;">2.<input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____.</p> <p style="margin-left: 20px;">3.<input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</p>		
<p>* See the attached detailed Office action for a list of the certified copies not received.</p>		
<p>14)<input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).</p> <p>a)<input type="checkbox"/> The translation of the foreign language provisional application has been received.</p>		
<p>15)<input type="checkbox"/> Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.</p>		
Attachment(s)		
<p>1)<input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 4)<input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____</p> <p>2)<input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 5)<input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>3)<input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6)<input type="checkbox"/> Other: _____</p>		

DETAILED ACTION

Notice to Applicant

1. This communication is in response to the application filed 7 March 2000. Claims 1-26 are pending. The IDS statement filed 7 March 2000 has been entered and considered.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Element 210 in Figure 2 and Element 380 in Figure 3. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: Element 110 is labeled a product server (page 6, line 24) and a rating engine client (page 6, line 10); element 120 is labeled a rating engine server (page 8, line 11) and a database interface (page 8, line 4), and element 205 is labeled a page (page 9, line 2), and a product (page 9, line 5). Element descriptions must be consistent.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

7. Claims 1-12, and 14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Under the statute, the claimed invention must fall into one of the four recognized statutory classes of invention, namely, a process (or method); a machine (or system); an article of manufacture; or a composition of matter.

(A) Claim 1 appears to be directed toward a software program. However, it is unclear as to which recognized statutory class of invention the software program of claim 1 is directed. In particular, a software program is not a process or method as it lacks a series of steps. A software program is not a machine or system as there is no specific recitation of machine or system components. A software program is not recognized as a composition of matter. A software program, *per se*, is merely a collection of lines of code.

Under the guidance of recent case law, the requirements of 35 U.S.C. 101 are met when “the practical application of the abstract idea produces a useful, concrete, and tangible result” (*State Street Bank & Trust Co. vs. Signature Financial Group, Inc.*, 47 USPQ2d 1596, 1601-02 (Fed. Cir. 1998)). The claims, as presently recited, do not have a tangible result. Computer programs not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in a computer. In

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particular, it is unclear whether the software program, as recited in claim 1, is embodied on a specific computer readable medium within the technological arts (and thus tangible), since it appears the software program is not limited to any particular computer member. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer's program to be realized (see MPEP section 2106 section IV, B, 1, (a) for further guidance).

Simply stated, how is the claimed software program tangibly embodied within the system, and how is that embodiment related to the computer component of the system?

In light of the above, it is respectfully submitted that the claimed invention, although useful and concrete, is not tangible, and thus fails to recite the practical application of an abstract idea to satisfy the requirements of 35 U.S.C. 101.

(B) The above deficiencies may be cured by simply explicitly reciting that the claimed system has *physical components* such as a processor. In addition, the software program must be *embodied on a computer-readable medium* (as appropriate). Or, the deficiency may be cured by reciting the claimed software program as an *article of manufacture embodied on computer readable medium*. Note the Applicant must show proper support for such recitations in the originally filed specification.

(C) Claims 2-14 incorporate the deficiencies of claim 1, through dependency, and are therefore rejected as well.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-12, 14, and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(A) Claim 1 recites “a system...” in the preamble but the body of the claim recites only software, namely, software interfaces and routines, According to the Microsoft Press Computer Dictionary (Microsoft Computer Dictionary Fifth Edition, Microsoft Press, Redmond, Washington, 2002) a system is “any collection of component elements that work together to perform a task.” Thus, reciting the claimed software and data as a system appears to be a misnomer, as the software and data by itself cannot perform a task. A computer processor is a required component to enact the programs to use the data and produce a result. The Examiner respectfully suggests two options for overcoming this deficiency. First is to expressly recite the claim as an article of manufacture. Second, if it is desired to recite to a system, the processor component must be included within the system. **Note:** With either option, the statutory nature of the claims must be addressed.

(B) Claim 2-14 incorporate the deficiency of claim 1 through dependency, and, therefore, are rejected as well.

(C) As per claim 25, claim 25 recites both a method and a computer readable medium. It is unclear which statutory class the claim is directed towards.

NOTE: For purposes of applying art, the examiner interprets the claims as best as possible in light of the non-statutory (101) and indefinite (112) issues.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Apte et al. (5,970,464) in view of Kennedy (5,787,453).

(A) As per claim 1, Apte teaches a product rate calculation system (Apte; col. 1, lines 14-16) comprising:

a) a database interface operable to request and receive product rate information from a database (Apte; col. 3, lines 20-26), the product rate information including at least one product rate expression (Apte; col. 4, lines 1-8);

b) a product rate information cache storing product rate information (Apte; col. 3, lines 6-19);

c) an expression evaluation routine operable to evaluate a product rate expression stored in the product rate information cache (Apte, col. 8, lines 54-60, col. 6, lines 8-9, and col. 9, lines 29-31) to determine a product rate (Apte; col. 3, lines 63-65). However, Apte does not expressly teach the expression evaluation routine being operable to parse the product rate expression into at least one token, and operable to evaluate the at least one token to determine a product rate. Kennedy teaches a system that parses formulas into operands and operators that are further evaluated to obtain a result (Kennedy; col. 3, lines 15-24 and col. 8, line 44 to col. 10, line 39). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the formula parser of Kennedy to the system of Apte with the motivation of providing users with very little grasp of computer programming methodologies a way to develop systems to calculate virtually anything of a mathematical nature once they can identify the source of data to be used, a target location for the result, and the fundamental mathematical operations needed to derive the result (Kennedy; col. 3, lines 30-35).

d) a client interface operable to provide the product rate to a client application running on a computer system (Apte; col. 6, lines 12-13).

(B) As per claim 2, Apte teaches the product rate information includes at least one multi-dimensional table of data (Apte; Figure 2).

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(C) As per claim 3, Apté teaches at least one dimension of the at least one multi-dimensional table is indexed by consumer information provided to the client interface Apté; col. 4, lines 8-10, col. 9, lines 9-10 and Figure 14, elements 1601 and 1605).

(D) As per claim 4, Apté teaches the product rate system as rejected in claim 1, and one rule that is a plurality of rules (Apté; col. 4, lines 6-7), and one of the plurality of rules having an operand and an operator (Apté; col. 4, lines 2-5). However, Apté does not expressly teach the rules being tokens. Kennedy teaches formulas, made up of many formula, parsed into tokens, operators and operands (Kenedy; col. 3, lines 15-24 and col. 8, line 44 to col. 10, line 39). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of Kennedy to the system of Apté with the same motivation as applied to claim 1, and incorporated herein.

(E) As per claim 5, Apté teaches the operand is a variable; and the operator is a logic operator (Apté; col. 4, lines 1-5).

(F) As per claim 6, Apté discloses the use of operators, operands and expressions (Apté; col. 4, lines 1-5). However the Apté does not expressly disclose the arrangement of the expressions into post-fix, pre-fix or in-fix notation. Kennedy teaches the use of Reverse Polish notation and other notations (Kennedy; col. 8, lines 54-60, Figures 5a-b). It would have been obvious to one

of ordinary skill in the art at the time of the invention to modify the expressions of Apte into the notation of Kennedy with the motivation of using a conventional mathematical field ordering notation that most readers would be familiar with (Kennedy; col. 8, lines 55-57).

(G) As per claim 7, Apte teaches the product rate information is insurance product rate information (Apte; col. 3, lines 9-11).

(H) As per claim 8, Apte teaches the use of the consumer information provided to the client interface to evaluate the rules (Apte; col. 4, lines 17-18 and col. 4, lines 8-10). However, Apte does not expressly disclose the rules being tokens. Kennedy teaches the parsing of formulas into tokens and the evaluation of the tokens (Kenedy; col. 3, lines 15-24 and col. 8, line 44 to col. 10, line 39). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of Kennedy to the system of Apte with the same motivation as applied to claim 1 and incorporated herein.

(I) As per claim 9, Apte teaches a client application running on a computer system (Apte; col. 1, lines 14-16) and being configured to:

- a) provide product information, including the product rate, to a user (Apte; col. 6, lines 12-13 and col. 9, lines 29-36);
- b) provide consumer information to the client interface (Apte; col. 4, lines 9-11); and

c) receive the product rate (Apte; col. 9, lines 29-36).

(J) As per claim 10, Apte teaches the product information is product information for home insurance (Apte; col. 1, lines 14-16).

(K) As per claims 11 and 12, Apte teaches an internet enabled software program doing the intensive work on the server and that the application interface is controlled by a client using a browser and connected via a network (Apte; col. 10, lines 5-9).

(L) As per claim 13, Apte teaches a product rate calculation system (Apte; col. 1, lines 14-16) implemented on a client server system (Apte; col. 2, lines 65-67), the server kernel written in C++ (Apte; col. 3, lines 3-5). Apte does not expressly disclose any portion of the product rate calculation system being encoded in a computer readable medium as instructions executable on a processor, the computer readable medium being one of an electronic storage medium, a magnetic storage medium, an optical storage medium, and a communications medium conveying signals encoding the instructions. However, it is respectfully submitted that in order for the server to enact the server kernel, the server must be reading the C++ code. Therefore, it is readily apparent that the system of Apte stores the instructions executable by a processor on computer readable medium.

(M) As per claim 14, Apte teaches the product rate calculation system as rejected in claim 1, further comprising a database operable to receive a product rate information request from the database interface (Apte; col. 3, lines 20-25) and provide product rate information to the database interface (Apte; col. 4, lines 9-11), the database including a multi-dimensional table of data, and a numeric value stored as a database record (Apte; Figures 2 and 4).

(N) As per claim 15, Apte teaches a method calculating a product rate (Apte; col. 1, lines 14-16) comprising:

- a) loading product rate information including at least one product rate expression from a database (Apte; col. 3, lines 24-27);
- b) storing the product rate information in a cache (Apte; col. 6, lines 4-8);
- c) receiving a request for a product rate from a client application running on a computer system (Apte; col. 3, lines 20-26);
- d) evaluating the product rate expression stored in the cache into at least one rule (Apte; col. 5, lines 55-58). However Apte does not expressly disclose the parsing of the product rate expression stored in cache into a token. Keenedy teaches the parsing of a mathematical expression stored in a database into tokens (Keenedy; col. 3, lines 15-24 and col. 8, line 44 to col. 10, line 39). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of Keenedy to the system of Apte with the motivation of leveraging an existing investment in databases and improved underwriting business processes (Apte; col. 1, lines 50-52);

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e) evaluating the at least one rule to determine the product rate (Apte; col. 6, lines 4-6, col. 8, lines 54-60 and col. 9, lines 29-35). However Apte does not expressly disclose the rule being a token. Kennedy teaches the parsing of an expression into tokens that are further executed to determine a result (Kenedy; col. 3, lines 15-24 and col. 8, line 44 to col. 10, line 39). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of Kennedy to the system of Apte with the same motivation as applied to claim 1 and incorporated herein; and

f) examining the product rate on the client application (Apte; col. 4, lines 29-30) and receiving the product rate (Apte; col. 3, lines 34-36). However, Apte does not expressly disclose the transmission of the product rate to the client application running on the computer system. It is respectfully submitted that if the client system received the product rate and displayed the product rate, then another component of the system had to provide the step of transmitting the product rate. Therefore it is readily apparent the method of Apte reads on this limitation.

(O) Claim 16 recites the same limitations as claim 2, and is therefore rejected for the same reasons provided for that claim and incorporated herein.

(P) As per claim 17, Apte teaches the product rate information stored as a plurality of records (Apte; col. 3, lines 6-8 and 20-26).

(Q) As per claim 18, Apte teaches the method as cited in the rejection of claim 15 and further that the request comprises receiving consumer information from the client applications (Apte; col. 4, lines 8-10), the consumer information being used to evaluate one token (Apte; col. 4, lines 17-18) to determine the product rate (Apte; col. 4, lines 29-30).

(R) Claim 19 lists the same features as claim 7, and is, therefore, rejected for the same reasons provided for that claim and incorporated herein.

(S) As per claim 20, Apte teaches an iterative process of fine-tuning the eligibility requirements in “what if” scenarios (Apte; col. 4, lines 29-37 and 40-46). It is respectfully submitted that the iterative process of evaluating the what-if scenarios would involve receiving, evaluating, and transmitting, the product information more than once. Therefore, it is readily apparent that the iterative process comprises these limitations.

The recitation of parsing recites the same limitations as claim 15, and is therefore, rejected for the same reasons provided for that claim and incorporated herein.

(T) Claims 21-22 list the same features as claims 4-5, respectively, and are therefore rejected for the same reasons provided for those claims and incorporated herein.

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(U) Claim 23 recites the same limitations as claim 6 and, therefore, is rejected for the same reasons as that claim and incorporated herein.

(V) As per claim 24, Apte teaches the evaluation of a rule to determine the product rate comprises a logical operation (Apte; col. 4, lines 6-7 and 1-5). However, Apte does not expressly disclose the rules being tokens. Kennedy teaches the evaluation of tokens to determine a result using numerical operations (Kenedy; col. 3, lines 15-24 and col. 8, line 44 to col. 10, line 39). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the feature of Kennedy to the system of Apte with the motivation of providing a system with which relatively unsophisticated computer users can themselves program and modify software to perform sophisticated applications (Kennedy; col. 2, lines 30-32).

(W) Claim 25 lists similar features as claim 13, and is, therefore, rejected for the same reasons provided for that claim and incorporated herein.

(X) Claim 26 recites the same limitations as claim 1 and is therefore rejected for the same reasons provided for that claim and incorporated herein.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited but not relied upon art teaches a system of nested equations being parsed and executed with financial planning examples (WO 88/08160), an IBM technical disclosure utilizing parsing of equations of common notation to make programming more user friendly (IBM Technical Disclosure Bulletin, February 1984), inputting equations of common notation into a pen-based apparatus for parsing and evaluation (5,627,914), a system that estimates the total damage to a car using multi-dimensional databases and equations (6,185,540 B1), a system that uses multi-dimensional databases to input consumer information and requests for insurance product rates (5,523,942), a system that parses the database fields to find the required data to include in an insurance quote (5,995,961), a system that provides an insurance calculation and shows the effect of a variable graphically (5,956,691), an automated insurance premium processing and quotation system with multi-dimensional databases, a client request and input screen (4,831,526), a system that lexically scans equations (6,378,126 B2), and an automated system for risk-based pricing of a warranty insurance policy using a plurality of databases, risk-based algorithms, and consumer information (6,182,048 B1).

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14. Any response to this action should be mailed to:

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Or faxed to:

(703) 305-7687 [Official communications]

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Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, VA, 7th floor receptionist.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet D. Chance whose telephone number is (703) 305-5356. The examiner can normally be reached on M-F 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on (703) 305-9588. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7687 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

JDC
August 7, 2002


JOSEPH THOMAS
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